President's Science Adviser

3/9/77 Frank Press

By WALTER SULLIVAN

There are few men who have known the pulse of the earth so intimately as Frank Press—its tremors, its free oscillations like those of a reverberating bell and all its other movements that tell about the planet's rigid, not-so-rigid and liquid interior.

Man in the News

Because such knowledge bears on two critical issues of our time—underground nuclear tests and predicting earthquakes—Dr. Press has spent enough time in Washington to know not only the forces that have shaped the earth, but also those that shape political and scientific decisions. His nomination yesterday as science adviser to President Carter, therefore, is no surprise, particularly in view of the President's reported declaration that he wanted an earth scientist rather than a physicist for the post.

As Dr. Press himself noted in a recent interview, many of the issues with which Mr. Carter is concerned involve the earth sciences—a comprehensive test ban treaty, a regime for equitable exploitation and protection of the sea bed and helping developing nations achieve their aspirations.

Dr. Press's experience in such matters dates back to 1958 when, at the age of 33, he began jousting the Soviet specialists at the Geneva test ban talks on what instrumentation was needed for each side to be sure the other was not conducting clandestine underground nuclear explosions.

Scientist in Inner Circle

In the subsequent 19 years Dr. Press has never been far removed from the central councils of government, as member of the President's Science Advisory Committee, the National Science Board and a succession of advisory panels on earthquake prediction and similar matters.

In 1960 Dr. Press won a scientist-of-the-year award from the California Museum of Science and Industry. At the time he headed the Seismological Laboratory of the California Institute of Technology and, the previous year, had recorded evidence that the entire earth had reverbated after the great Chilean earthquake of May 22, 1959. As the codiscoverer of such a "free oscillation" of the earch, he won the Medal of the Royal Astronomical Society of Britain.

Native of Brooklyn

Frank Press was born to Solomon Press, a Brooklyn food dealer, and his wife, the former Dora Steinholz, on Dec. 4, 1924. Both parents are deceased. After attending Tilden High School there Dr. Press went to City College from which he graduated magna cum laude with honors in physics in 1944.

While working toward his doctorate at Columbia University, he studied under Dr. Maurice Ewing who soon thereafter founded the university's Lamont Geological Observatory (now the Lamont-Doherty Geological Observatory) at Palisades, N.Y.

The two men worked together on a new kind of long-period seismograph that would be sensitive to earth tremors with frequencies ranging from 15 to 90 seconds. This made possible the recording of earthquake waves traversing the great ocean basins and the Press-Ewing seismograph soon became a standard tool of earth scientists around the world.

Analysis of Earthquake

In 1955 Dr. Press took over as head of Cal Tech's Seismological Laboratory. His analysis of earthquake wave propagation through upper layers of the earth's interior helped establish the existence there of the soft layer, or asthenosphere, that permits continental drift, the lateral movement of the great plates forming the rigid surface of the earth.

He moved to the East in 1965 to head the Department of Geology and Geophysics at Massachusetts Institute of Technology. He is married to the former Billie Kallick.

In recent years Dr. Press has ardently promoted research that might lead to reliable earthquake prediction. He led a delegation of seismic specialists to China in 1974 and is currently chairman of the Committee on Scholarly Communication with the People's Republic of China, which arranges visits by scholars.

Dr. Press is slight of build, soft-spoken and precisely methodical. His son, William Press, a professor of astronomy at Harvard University and astrophysicist on the staff of the nearby Smithonian Astrophysical Observatory, is highly regarded in the field of cosmology. His daughter, Paula Checkoway, is married to a graduate Stu-

Associated Press

"One of the authentic heroes of the new age of space."

dent in public health at the University of North Carolina.

The elder Dr. Press designed the seismographs set up by astronauts at five locations on the moon; four of them were still operating at last report. This inspired his alma mater, City College, to honor him with a doctorate of law and a citation that read in part:

"To those who see the future of scientific man written in the stars, you are one of the authentic heroes of the new age of space."